Emre Aliya

US Citizen • Atlanta, Georgia • ealiya2018@gmail.com • 404-649-1030 • LinkedIn • Github

EDUCATION

Georgia Institute of Technology   **Graduation 08/2023 - 05/2027**

Bachelors in Computer Engineering   **GPA: 3.41**

Minor in Computer Science, Distributed System & Software Design and Computing Hardware

Relevant Coursework: (CS) Object Oriented Programming, (CS) Data Structures & Algorithms, Calculus III, (CS) Discrete Math, Linear Algebra, Digital System Design, Programming HW/SW, Embedded Systems Design

EXPERIENCE

Walmart Global Tech   **06/2025 - 08/2025**

Software Engineering Intern   Bentonville, Arkansas

- Implemented a hybrid semantic keyword search engine by combining **Chroma VectorDB** embeddings, **FAISS** similarity indexing, and **pandas** preprocessing, boosting **RAG** query accuracy by 50%
- Developed **Salesforce** YAML instruction pipelines using **LangChain**, **FastAPI**, and asynchronous **Python orchestration** to streamline **LLM** prompt generation and cut runtime latency by 2×
- Integrated RAG framework with an **MCP server** through Python microservices and RESTful APIs, allowing for data exchange between Salesforce, Chroma, and GPT-4

Mozilla Firefox   **09/2024 - 04/2025**

Free Open Source Developer (Unpaid)   Remote

- Updated incorrect URLs using HTML to restore missing pages from backups with a 72% decrease in error
- Resolved a memory leak bug using C++ in the browser, leading to a 15% reduction in memory usage
- Addressed a bug relating to scrolling using HTML, leading to a more fluid user experience

University of Georgia CURO Hardware Engineering   **08/2023 - 07/2024**

Undergraduate Physics Researcher   Athens, Georgia

- Implemented a C algorithm in Unreal Engine for asteroid generation, resulting in 30% smoother environment physics
- Combined Python for real-time adjustments to the env with unit testing, resulting in an interface for collaboration
- Presented the project at a Physics Symposium and shared the free simulation to other professors to use in their class

TECHNICAL PROJECTS

NAVY SEAL Leftover Fridge AI   **01/2023 - 4/2023**

- Integrated Google Vision API for item detection, correctly identifying over 80% of ingredients and focusing on protein
- Designed a simple workflow where users upload images with file storage using AWS S3

Hardware for Atlanta City Street Lights   **02/2025 - 03/2025**

- Developed HW/SW with a small team to fix a failing streetlight, now deployed on 10th Street Northwest
- Integrated VHDL code to the FPGA using SCOMP assembly, effectively testing state logic for hardware testing

Low-Power Wireless Sensor Node   **01/2025 - 05/2025**

- Reduced power consumption by 40% using sleep/wake cycles and ISR-driven design resulting in extended battery
- Achieved reliable BLE data transmission using ARM Cortex-M firmware in C resulting in remote monitoring

SKILLS

Languages/Software: Java, Python, C/C++, HTML, Javascript, VHDL, SCOMP, RISC V, ARM, MIPS, X86 ISA

Developer Tools: Visual Studio Code (VS Code), GitHub, Eclipse, IntelliJ, Intel Quartus, Arduino, Linux

Libraries/Frameworks: AWS, Git, Spring Boot, Machine Learning (ML), Artificial Intelligence (AI), React